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(54) Title: CHEMICALLY BONDED BIOMATERIAL WITH TAILORED PROPERTIES

$$\lambda = \frac{d * (1 - V_F)}{(V_F)} \quad (I)$$

added filler, and where  $\lambda = 10 \mu\text{m}$ . The invention also relates to a device in connection with the preparation of a chemically bonded biomaterial element according to the invention.

(57) Abstract: A chemically bonded biomaterial element composed of an inorganic cement, exhibiting minimal dimensional changes upon hardening and long-time use, improved mechanical properties and improved translucency. An algorithm to describe the micro-structure is expressed as (I) where  $\lambda$  is the distance between filler particles of mean size  $d$ , and  $V_F$  is the volume content of non-reacted cement and

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